

**Sequences**

## SEQUENCE LISTING

<110> BROWN, Eric L.

LEE, Lawrence

HOOK, Magnus

<120> METHOD OF PREVENTING T CELL-MEDIATED RESPONSES BY THE USE OF THE MAJOR HISTOCOMPATIBILITY COMPLEX CLASS II ANALOG PROTEIN (MAP PROTEIN) FROM STAPHYLOCOCCUS AUREUS

<130> P07023US01/BAS

<150> 60/260,523

<151> 2001-01-10

<160> 4

<170> PatentIn version 3.1

<210> 1

<211> 603

<212> DNA

<213> Staphylococcus aureus

<220>

<221> CDS

<222> (1)..(603)

<223>

<400> 1

atg aga gga tcg cat cac cat cac cat cac gga tcc cag att cca tat

|   |     |
|---|-----|
| Met Arg Gly Ser His His His His His His Gly Ser Gln Ile Pro Tyr |     |
| 1 5 10 15   |     |
| aca atc act gtg aat ggt aca agc caa aac att tta tca agc tta aca | 96  |
| Thr Ile Thr Val Asn Gly Thr Ser Gln Asn Ile Leu Ser Ser Leu Thr |     |
| 20 25 30  |     |
| ttt aat aag aat caa caa att agt tat aaa gat ata gag aat aaa gtt | 144 |
| Phe Asn Lys Asn Gln Gln Ile Ser Tyr Lys Asp Ile Glu Asn Lys Val |     |
| 35 40 45  |     |
| aaa tca gtt tta tac ttt aat aga ggt att agt gat atc gat tta aga | 192 |
| Lys Ser Val Leu Tyr Phe Asn Arg Gly Ile Ser Asp Ile Asp Leu Arg |     |
| 50 55 60  |     |
| ctt tct aag caa gca aaa tac acg gtt cat ttt aag aat gga aca aaa | 240 |
| Leu Ser Lys Gln Ala Lys Tyr Thr Val His Phe Lys Asn Gly Thr Lys |     |
| 65 70 75 80   |     |
| aga gtt gtc gat ttg aaa gca ggc att cac aca gcc gac tta atc aat | 288 |
| Arg Val Val Asp Leu Lys Ala Gly Ile His Thr Ala Asp Leu Ile Asn |     |
| 85 90 95  |     |
| aca agt gac att aaa gca att agt gtt aac gta gat act aaa aag caa | 336 |
| Thr Ser Asp Ile Lys Ala Ile Ser Val Asn Val Asp Thr Lys Lys Gln |     |
| 100 105 110   |     |
| gtg aaa gat aaa gag gca aaa gca aat gtt caa gtg ccg tat aca atc | 384 |
| Val Lys Asp Lys Glu Ala Lys Ala Asn Val Gln Val Pro Tyr Thr Ile |     |
| 115 120 125   |     |
| act gtg aat ggt aca agc caa aac att tta tca aac tta aca ttt aaa | 432 |
| Thr Val Asn Gly Thr Ser Gln Asn Ile Leu Ser Asn Leu Thr Phe Lys |     |
| 130 135 140   |     |
| aag aat cag caa att agt tat aaa gat tta gag aat aat gta aaa tca | 480 |
| Lys Asn Gln Gln Ile Ser Tyr Lys Asp Leu Glu Asn Asn Val Lys Ser |     |
| 145 150 155 160   |     |
| gtt tta aaa tca aac aga ggt ata act gat gta gat tta aga ctt tca | 528 |
| Val Leu Lys Ser Asn Arg Gly Ile Thr Asp Val Asp Leu Arg Leu Ser |     |
| 165 170 175   |     |
| aaa caa gcg aaa ttt aca gtt aat ttt aaa aat ggc acg aaa aaa gtt | 576 |
| Lys Gln Ala Lys Phe Thr Val Asn Phe Lys Asn Gly Thr Lys Lys Val |     |
| 180 185 190   |     |
| atc gat ttg aaa gca ggc att tat tga                             | 603 |
| Ile Asp Leu Lys Ala Gly Ile Tyr                                 |     |
| 195 200   |     |

&lt;210&gt; 2

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Staphylococcus aureus

&lt;400&gt; 2

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Gly | Ser | His | His | His | His | His | Gly | Ser | Gln | Ile | Pro | Tyr |
| 1   |     |     |     | 5   |     |     |     | 10  |     |     |     |     | 15  |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ile | Thr | Val | Asn | Gly | Thr | Ser | Gln | Asn | Ile | Leu | Ser | Ser | Leu | Thr |
|     |     |     | 20  |     |     |     | 25  |     |     |     |     | 30  |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Asn | Lys | Asn | Gln | Gln | Ile | Ser | Tyr | Lys | Asp | Ile | Glu | Asn | Lys | Val |
|     |     | 35  |     |     |     | 40  |     |     |     | 45  |     |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Val | Leu | Tyr | Phe | Asn | Arg | Gly | Ile | Ser | Asp | Ile | Asp | Leu | Arg |
|     |     | 50  |     |     |     | 55  |     |     |     | 60  |     |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Lys | Gln | Ala | Lys | Tyr | Thr | Val | His | Phe | Lys | Asn | Gly | Thr | Lys |
|     |     | 65  |     |     | 70  |     |     |     | 75  |     |     | 80  |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Val | Asp | Leu | Lys | Ala | Gly | Ile | His | Thr | Ala | Asp | Leu | Ile | Asn |
|     |     |     |     | 85  |     |     |     | 90  |     |     |     | 95  |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Asp | Ile | Lys | Ala | Ile | Ser | Val | Asn | Val | Asp | Thr | Lys | Lys | Gln |
|     |     |     | 100 |     |     |     | 105 |     |     |     | 110 |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Lys | Asp | Lys | Glu | Ala | Lys | Ala | Asn | Val | Gln | Val | Pro | Tyr | Thr | Ile |
|     |     | 115 |     |     |     | 120 |     |     |     | 125 |     |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Asn | Gly | Thr | Ser | Gln | Asn | Ile | Leu | Ser | Asn | Leu | Thr | Phe | Lys |
|     |     |     |     |     | 130 |     |     | 135 |     |     | 140 |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Gln | Gln | Ile | Ser | Tyr | Lys | Asp | Leu | Glu | Asn | Asn | Val | Lys | Ser |
|     |     | 145 |     |     | 150 |     |     |     | 155 |     |     | 160 |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Lys | Ser | Asn | Arg | Gly | Ile | Thr | Asp | Val | Asp | Leu | Arg | Leu | Ser |
|     |     |     |     | 165 |     |     |     | 170 |     |     | 175 |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Ala | Lys | Phe | Thr | Val | Asn | Phe | Lys | Asn | Gly | Thr | Lys | Lys | Val |
|     |     |     |     | 180 |     |     |     | 185 |     |     | 190 |     |     |     |     |

|     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|--|--|
| Ile | Asp | Leu | Lys | Ala | Gly | Ile | Tyr |  |  |  |  |  |  |  |  |
|     |     |     |     | 195 |     | 200 |     |  |  |  |  |  |  |  |  |

&lt;210&gt; 3

&lt;211&gt; 396

&lt;212&gt; DNA

&lt;213&gt; Staphylococcus aureus

1994-1995-201002

<220>

<221> CDS

<222> (1)..(396)

<223>

|   |     |     |     |
|---|-----|-----|-----|
| <400>   | 3   |     | 48  |
| atg aga gga tcg cat cac cat cac cat cac gga tcc cag att cca tat |     |     |     |
| Met Arg Gly Ser His His His His His His Gly Ser Gln Ile Pro Tyr |     |     |     |
| 1   | 5   | 10  | 15  |
| aca atc act gtg aat ggt aca agc caa aac att tta tca agc tta aca |     |     | 96  |
| Thr Ile Thr Val Asn Gly Thr Ser Gln Asn Ile Leu Ser Ser Leu Thr |     |     |     |
| 20  | 25  | 30  |     |
| ttt aat aag aat caa caa att agt tat aaa gat ata gag aat aaa gtt |     |     | 144 |
| Phe Asn Lys Asn Gln Gln Ile Ser Tyr Lys Asp Ile Glu Asn Lys Val |     |     |     |
| 35  | 40  | 45  |     |
| aaa tca gtt tta tac ttt aat aga ggt att agt gat atc gat tta aga |     |     | 192 |
| Lys Ser Val Leu Tyr Phe Asn Arg Gly Ile Ser Asp Ile Asp Leu Arg |     |     |     |
| 50  | 55  | 60  |     |
| ctt tct aag caa gca aaa tac acg gtt cat ttt aag aat gga aca aaa |     |     | 240 |
| Leu Ser Lys Gln Ala Lys Tyr Thr Val His Phe Lys Asn Gly Thr Lys |     |     |     |
| 65  | 70  | 75  | 80  |
| aga gtt gtc gat ttg aaa gca ggc att cac aca gcc gac tta atc aat |     |     | 288 |
| Arg Val Val Asp Leu Lys Ala Gly Ile His Thr Ala Asp Leu Ile Asn |     |     |     |
| 85  | 90  | 95  |     |
| aca agt gac att aaa gca att agt gtt aac gta gat act aaa aag caa |     |     | 336 |
| Thr Ser Asp Ile Lys Ala Ile Ser Val Asn Val Asp Thr Lys Lys Gln |     |     |     |
| 100   | 105 | 110 |     |
| gtg aaa gat aaa gag gca aaa gca aat gtt gtc gac ctg cag cca agc |     |     | 384 |
| Val Lys Asp Lys Glu Ala Lys Ala Asn Val Val Asp Leu Gln Pro Ser |     |     |     |
| 115   | 120 | 125 |     |
| tta att agc tga .   |     |     | 396 |
| Leu Ile Ser   |     |     |     |
| 130   |     |     |     |

<210> 4

<211> 131

<212> PRT

<213> *Staphylococcus aureus*,

<400> 4

Met Arg Gly Ser His His His His His His Gly Ser Gln Ile Pro Tyr  
1 5 10 15

Thr Ile Thr Val Asn Gly Thr Ser Gln Asn Ile Leu Ser Ser Leu Thr  
20 25 30

Phe Asn Lys Asn Gln Gln Ile Ser Tyr Lys Asp Ile Glu Asn Lys Val  
35 40 45

Lys Ser Val Leu Tyr Phe Asn Arg Gly Ile Ser Asp Ile Asp Leu Arg  
50 55 60

Leu Ser Lys Gln Ala Lys Tyr Thr Val His Phe Lys Asn Gly Thr Lys  
65 70 75 80

Arg Val Val Asp Leu Lys Ala Gly Ile His Thr Ala Asp Leu Ile Asn  
85 90 95

Thr Ser Asp Ile Lys Ala Ile Ser Val Asn Val Asp Thr Lys Lys Gln  
100 105 110

Val Lys Asp Lys Glu Ala Lys Ala Asn Val Val Asp Leu Gln Pro Ser  
115 120 125

Leu Ile Ser  
130